

ABSTRACT OF THE DISCLOSURE

A method for manufacturing a semiconductor device can prevent defective products resulting from a plating liquid when surfaces of protruded portions of penetration electrodes are subjected to plating. An organic insulation film (14) is formed on one surface of a substrate proper (10), and a support member (16) is adhered to the organic insulation film (adhesion step). A rear side of the substrate proper is removed until protruded portions (6) of penetration electrodes (7) are exposed, thereby to form a semiconductor substrate (5). Plating films (8) are formed on the surfaces of the protruded portions (6), and the support member and the organic insulation film are removed from the semiconductor substrate. The organic insulation film has an adhesive property and chemical resistance to chemical substances used in respective steps after the adhesion step, and it is at least dissolved in or peeled off from a chemical substance used in the removal step.